



SCHOTT  
glass made of ideas

Perfect Lighting  
Perfect Atmosphere

Cabin and Seat Illumination



SCHOTT is a leading international technology group in the areas of specialty glass and glass-ceramics. With more than 130 years of outstanding development, materials and technology expertise we offer a broad portfolio of high-quality products and intelligent solutions that contribute to our customers' success.

SCHOTT's Lighting and Imaging division has been active in the area of aircraft cabin illumination since the 1990s. Based on our extensive know-how in optical technologies, the expertise has been extended into the field of fiber optics. Especially the connection of fiber optics with modern LED technology enables fascinating lighting solutions in aircraft cabins that provide passengers with an unmatched on-board experience.



## Perfect lighting creates perfect atmosphere

There is nothing more perfect than natural light. Nature creates the perfect atmosphere and SCHOTT aims to enable the perfect lighting to set the stage in aircraft cabins.

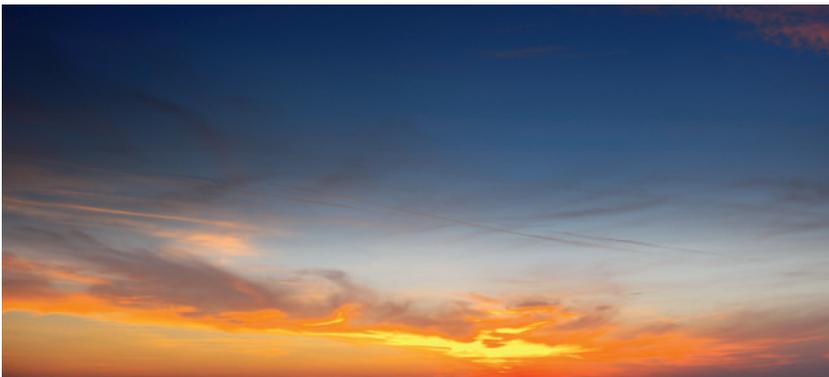
The beauty of natural light becomes most obvious when light intensity and color shades merge together to make a perfect mix, which creates an unmatched overall impression and a stunning atmosphere.

At SCHOTT Aviation we aim to create light scenes that present striking moments. As with nature, we not only provide light for the sake of beauty, we enable airlines and passengers to experience the right setting both during the day and night while on board.



SCHOTT is the only cabin lighting specialist that is able to realize a holistic approach that orchestrates different light elements into one cabin lighting scenario. Our products offer unique possibilities due to the combination of fiber optic and LED technology.

This brochure shows our spirit. We are dedicated to gathering inspiration from nature and turning your cabin into a very special place. All day and all night.



## Morning has broken

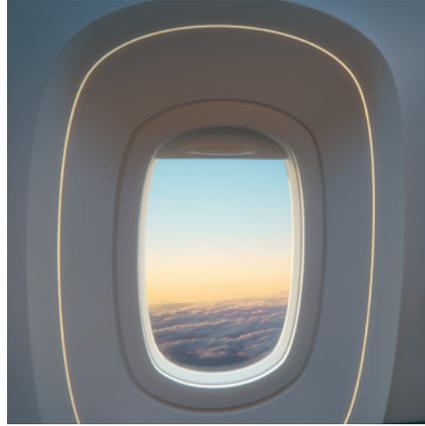
The day slowly breaks the night and energizes human life with soft and clear color shades.

We are very sensitive when switching from night to day mode. An abrupt awakening from harsh penetrating lights has a very negative effect on the start of your day. SCHOTT lighting provides passengers with a soft and quickened start into the day.

SCHOTT® Reading Lights bring the light exactly to the spot where it should be. The combination of fiber optic and LED technology enables reading lights to be customized and placed even in very limited spaces. Our unique modular system, with components that are already approved by major aircraft manufacturers, ensures the realization of projects fast and efficiently.

SCHOTT® HeliLine is another unique lighting product. The side-emitting optical glass fiber offers almost unlimited possibilities to realize situational lighting features, which connect design and functional aspects.





A perfect start into the day with a SCHOTT® Opal Reading Light and SCHOTT® HeliLine ambient contour illumination





## It is lunchtime: “Bon Appétit!”

One might guess that lighting does not matter much when it is bright as day. Not quite true. You eat with your eyes!

SCHOTT® HelioJet® Spectrum<sup>CC</sup>, the advanced LED cabin lighting system, sets completely new standards in ambient as well as in daytime functional lighting. The unique HelioJet® technology secures homogenous light in the entire cabin very close to natural daylight.

HelioJet® technology enables a superior LED performance, which creates a high quality of lighting. It is nature’s light, which reveals the appearance to everything around us: the seat we sit in, the carpet we look at, or even the glossy magazine we read. Passengers on board have the time to enjoy the surroundings. And airlines should create an environment where this can happen. HelioJet® technology manages human impressions and your passengers will appreciate it.



It is light that makes the difference.



Restaurant owners are particularly sensitive to using the correct light to display their food. Why is this? Because we all “eat with our eyes.” With HelioJet® you can spot exactly the light that puts your cabin into natural colors. Anytime and over the entire lifetime of an LED.

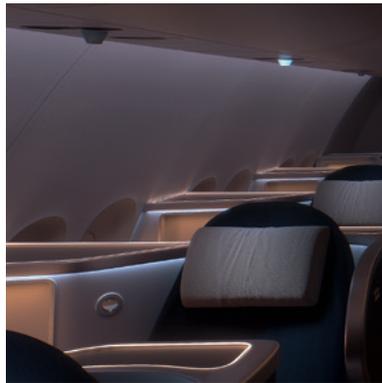
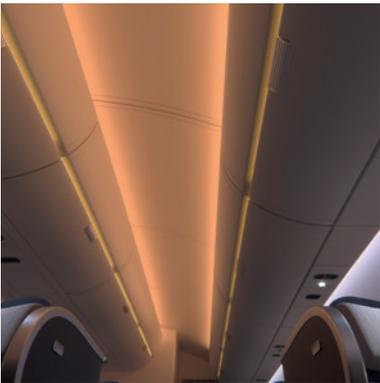


## The sun goes down. The mood goes up.

Natural light reveals its warmest tones when the sun is about to set. On board we can capture such perfect moments.

Passengers appreciate it when they can relax and recharge on board. Light is a strong tool for fostering impressions and influencing perceptions. Our holistic lighting approach orchestrates different light elements in one coordinated cabin scenario.

SCHOTT® HelioCurve flexible LED strips create stunning wash light effects which join into the scenario of the overall HelioJet® Spectrum<sup>CC</sup> cabin lighting. No other lighting system allows for a comparable, coordinated approach. HelioJet® technology continuously manages every single LED to avoid even the smallest drift in color and intensity.



Holistic mood lighting:  
Different lights. One look.



## Wish upon a star: beautiful star ceiling

When the night comes, it is time for the beauty of light impulses to take the stage.

The wonder of a star-filled sky allows us to see the world in another light. If you are not yet asleep, you might want to relax and enjoy a memorable experience of the galaxies from the comfort of your own seat.

### Adding beauty to air travel

The SCHOTT Star Ceiling replicates a beautiful night sky in the cabin, providing a truly relaxing in-flight experience for passengers. Up to 30 light dots or stars can be created with one harness. Each harness consists of fiber optic light guides that are powered by a single LED light source.

The system is 30% lighter than traditional LED solutions, its fiber optic bundles are simpler and faster to install, and there's no electrical interference with wireless on-board applications.



Smart software enables the SCHOTT Star Ceiling to create a number of effects: Constellation Stars, Flickering Stars and Background Stars.



The optical light converter emits light homogeneously over its entire length.



Unlimited possibilities for mood lighting, corporate color and endless scenes

## Wash and Ceiling Lights: HelioJet® Spectrum<sup>CC</sup> Cabin Lighting System

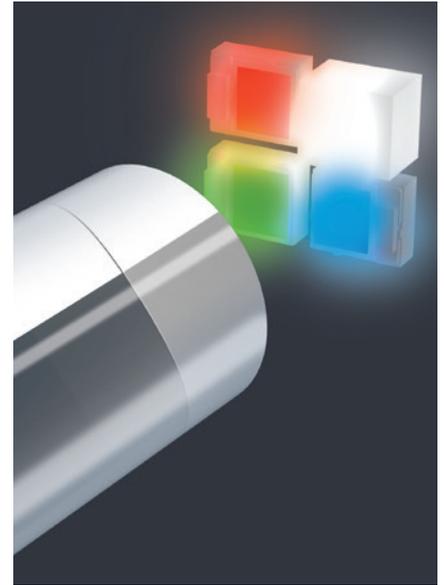
Lighting has become an essential factor in cabin interior designs. Light decisively influences passenger well-being while enabling airlines to enhance their onboard brand recognition.

That is why we introduced the SCHOTT HelioJet® Spectrum<sup>CC</sup> illumination system for aircraft cabins. Our cabin lighting solution provides functional and full color light for wash and ceiling light applications.

Our unique product layout matches with the peculiarity of human perception. A sensor secures utmost homogeneous light output and color stability for 16.7 million color shades.



The unique color control ensures perfectly accurate colors.



Only one LED clusters at each end of the optical converter

Different from conventional LED cabin lighting systems HelioJet® technology feeds LED light into an optical light converter that evenly distributes light over the entire length. A color sensor constantly controls the colors of the LEDs and thus also does away with obsolescence.

HelioJet® cabin lighting is designed for use in linefit and retrofit projects. Compatible with a range of airline fleet aircraft, including the Airbus A320, A330/340, A350 and A380, and the Boeing B737, B747, B777 and B787, the platforms can also be comfortably accommodated by all major models of business jets.

The SCHOTT HelioJet® system works with all major cabin management systems. For Scandinavian Airlines it has been customized to work with the NICE® cabin management system by Lufthansa Technik. Flying since 2015, our HelioJet® technology has achieved more than one million operating hours based on real flight data (MTBF).



## Mood Lights

Enhance the in-flight experience with effective cabin mood lighting! From subtle seat illumination to contours, walls and rails, our customizable lighting products take passenger experience to the next level.

### **Better design, stunning illumination**

SCHOTT's compact and versatile LED and flexible fiber optic line lights subtly illuminate the contours of a cabin, offering a settling and restful environment for passengers. Our LED and fiber optic line lights also fit into small space envelopes and can run along flexible contours.

### **Homogenous lighting for every corner of the cabin**

SCHOTT's mood lights offer high and homogeneous light emission with excellent color characteristics for perfect wash and contour lights. We work closely with airlines and aircraft designers to create bespoke lighting solutions, providing holistic approaches for illumination in all areas of the cabin – from the aisles to the galleys.

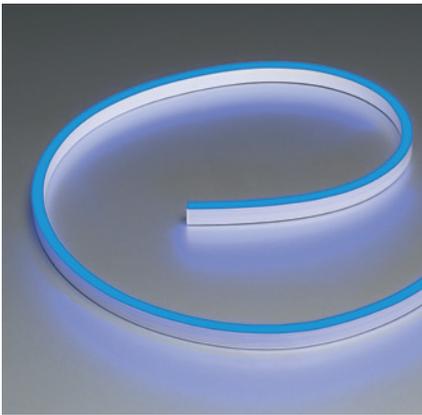
### **Distinct but complementary products**

SCHOTT® HelioCurve flexible LED strips and SCHOTT® HelioLine flexible fiber optic light guides are two distinct but complementary products that can combine with other SCHOTT components, as well as aircraft hardware and software, to collectively create the best possible on-board atmosphere.

### HelioCurve LED Strips

Flexible, homogeneous and bright, SCHOTT® HelioCurve LED strips are available in white or full color varieties, customizable on request and only require a very small space envelope to work their magic.

The strips have a control header that provides robust LED protection and they are controllable via PWM or bus-control using a Multi Light Controller box, which can also provide status management, power leveling and other key information.



Flexible, homogeneous and bright: SCHOTT® HelioCurve LED strips



A | Maximum design freedom, even when space is limited: SCHOTT® HelioLine fibers

B | Fibers do not carry electrical power. No heat. And no problems even in very wet areas.

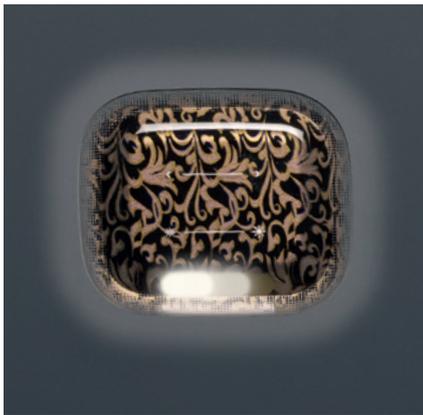
### HelioLine Contour Lighting

SCHOTT® HelioLine side-emitting optical fibers are very flexible and offer extremely small bending radii, enabling optimum design freedom and the ability to operate with very limited space or depth. The fiber optic system relies on a non-electrical light emitter – a big safety advantage especially in working and wet areas like galleys and bathrooms.

HelioLine is powered by the SCHOTT® HelioBasic and HelioIntense Light Sources, which can be placed under the seat or in any compartment.

## Jewels in the Sky – Next Generation Reading Lights

Let's enhance passenger experience with our new LED in-seat lighting solutions: Innovative features and high degree of customization for maximum design freedom.



### SCHOTT® Jade\* –

the first reading light ever made of glass and based on touch technology

- Unlimited design options
- Up to 90% less maintenance and repair efforts
- Integrated ambient light
- Clean look and feel



### SCHOTT® Opal –

Style meets functionality in this ultra slim and elegant reading light

- Modular concept with different shapes and finishes
- Easy to install
- Passenger-friendly usability

### SCHOTT® Sapphire\* –

Design Concept

- Unique set of modern reading / functional lights
- Integrated ambient light
- Modular concept with different shapes and finishes



## Established Reading Lights

SCHOTT has produced reading lights for aircraft cabins for over two decades, with the designs of our semi-compact and flex-and-stay ranges well established in modern aircraft interiors.

The SCHOTT portfolio of aviation lighting offers you limitless design options using the highest quality components. Instead of investing in time-consuming development and qualification processes to realize your ideas, you can concentrate on what really counts: finding the best reading light solution for your needs.

Whether it's a pure LED solution or a combination of LED and fiber optics, we can create high performance reading light solutions for your entire fleet.



### SCHOTT® Semi-Compact

Reading Light Series: standard features meet customizable qualities

- Wall-mounted adjustable LED or fiber optic lights
- Well-suited for retrofit projects

SCHOTT® Polaris angled

SCHOTT® Orbit

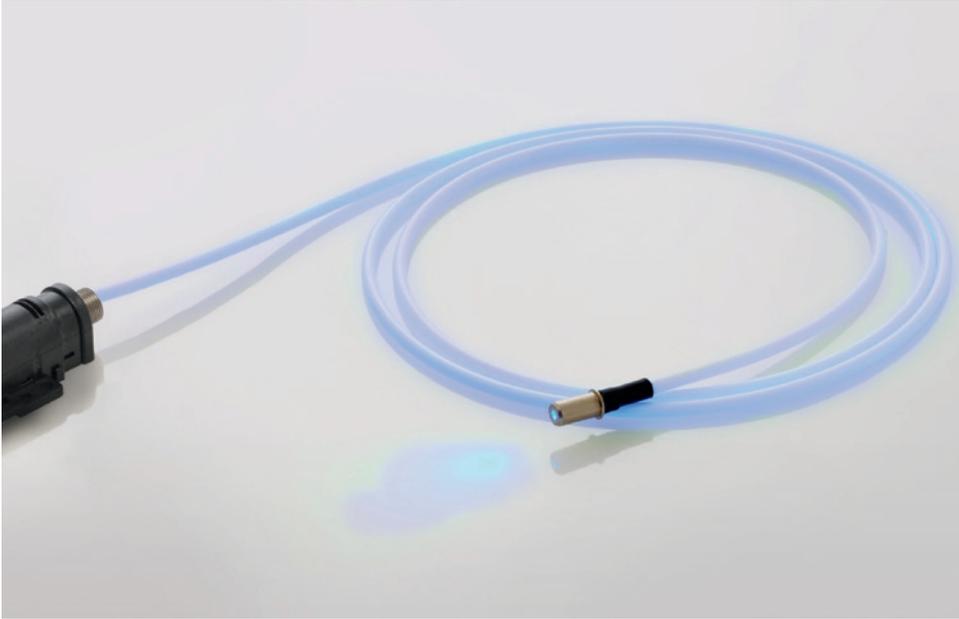
### SCHOTT® Flex-And-Stay

Reading Light Series: standard features meet customizable qualities

- LED solutions in robust designs and many colors
- Fiber optic solutions with slim, elegant design and no electronic cable routing through the seat



SCHOTT® Cirrus II



SCHOTT® HelioBasic II:  
The ideal solution when space  
is limited

## Light it right with SCHOTT LED light sources

SCHOTT offers a versatile and beautiful light solution for all areas of the aircraft cabin, whether it's for the ceiling, windows, seats or aisle. Our fiber optic solutions are powered by reliable LED light sources, offering a high level of design freedom, as well as strict compliance with the latest standards.

### **Discreet but effective**

SCHOTT's light sources range from white or single-color LEDs to sources with both color and brightness controls. One LED source can cover several lights, and while the visible part of the light can be modified to suit cabin design, the light source is discreetly hidden.

### **Modular design for cost-effective maintenance**

SCHOTT Aviation Light Sources can offer illumination in several different areas of an aircraft cabin, dovetailing with design visions as well as fitting in with technical requirements. Since both source and light are modular in design, they can also easily be replaced, reducing maintenance costs.



SCHOTT® HeliolIntense:  
Bright single color light source  
for various applications



SCHOTT® HeliolIntense Spectrum<sup>CC</sup>:  
High brightness and color stabilized  
light output

### SCHOTT® HeliolBasic II

With space always at a premium inside the aircraft cabin, the SCHOTT® HeliolBasic II light source provides a versatile, lightweight and compact solution. This highly efficient light source delivers homogenous single-color lighting that's entirely customizable depending on customer requirements. The light source is compliant with all Airbus and Boeing regulations and qualified for all major passenger aircraft. An application example for this source is the Star Ceiling.

### SCHOTT® HeliolIntense

Efficient and strong, the SCHOTT® HeliolIntense single-color LED light source was developed specifically to be combined with SCHOTT's range of innovative and versatile fiber optics. It includes a data interface that creates bespoke cabin lighting suitable for an impressive range of aircraft interior designs. A typical application is single color contour lighting.

### SCHOTT® HeliolIntense Spectrum<sup>CC</sup>

The brightness and color control offered by this LED source provides strong, efficient and esthetically striking cabin lighting that offers a wide range of possibilities for customization and design enhancement. It also enables perfect color and brightness match with SCHOTT HeliolJet® cabin lighting. This light source is well-suited for fully color-stabilized contour lighting.



## Somewhere over the rainbow

Light can create perfect moments. SCHOTT can help you to create a perfect atmosphere in your aircraft.

Of course it takes more than perfect lighting to generate a stunning cabin impression. However, if the light is not perfect, the atmosphere never will be. In SCHOTT Aviation you will find a committed and reliable partner. Our lighting solutions are based on unique technologies that will provide you with unmatched results.

**Perfect Lighting. Perfect Atmosphere.**



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